

IN THE CLAIMS:

Please amend the claims as follows:

Claims 1 to 13. (Canceled)

14. (Currently amended) A method for the inhibition of viral proliferation which comprises treating a patient with a composition containing an antiviral effective amount of a serine protease inhibitor comprising the amino acid sequence ~~of a naturally-occurring secretory leukocyte protease inhibitor or a substitution analog comprising the~~ amino acid sequence (SEQ ID NO:4) set forth in SEQ ID NO:4:

R1-Gly-Lys-Ser-Phe-Lys-Ala-Gly-Val-Cys-Pro-Pro-
Lys-Lys-Ser-Ala-Gln-Cys-Leu-R2-Tyr-Lys-Lys-Pro-
Glu-Cys-Gln-Ser-Asp-Trp-Gln-Cys-Pro-Gly-Lys-Lys-
Arg-Cys-Cys-Pro-Asp-Thr-Cys-Gly-Ile-Lys-Cys-Leu-
Asp-Pro-Val-Asp-Thr-Pro-Asn-Pro-Thr-Arg-Arg-Lys-
Pro-Gly-Lys-Cys-Pro-Val-Thr-Tyr-Gly-Gln-Cys-R8-
R3-R9-Asn-Pro-Pro-Asn-Phe-Cys-Glu-R4-Asp-Gly-
Gln-Cys-Lys-Arg-Asp-Leu-Lys-Cys-Cys-R5-Gly-R6
Cys-Gly-Lys-Ser-Cys-Val-Ser-Pro-Val-Lys-R7

wherein

R1 and R7 are the same or different and are ~~selected from the group consisting of serine, alanine or a substituted or unsubstituted~~ an amino acid residue;

R2, R3, R4, R5 and R6 are the same or different and are selected from the group consisting of methionine, valine, alanine, phenylalanine, tyrosine, tryptophan, lysine, glycine and arginine; and

R8 and R9 are the same or different and are selected from the group consisting of methionine, valine, alanine, phenylalanine, tyrosine, tryptophan, lysine, glycine, leucine and arginine.

15. (Currently amended) The method of claim 14, wherein said ~~secretory-leukocyte~~ serine protease inhibitor is administered intravenously.

16. (Currently amended) The method of claim 14, wherein said ~~secretory-leukocyte~~ serine protease inhibitor is administered subcutaneously.

17. (Currently amended) The method according to claim 14, wherein said ~~substitution analog~~ serine protease inhibitor has phenylalanine at position R8.

18. (Currently amended) The method according to claim 14, wherein said ~~substitution analog~~ serine protease inhibitor has glycine at position R2.

19. (Currently amended) The method according to claim 14, wherein said ~~substitution analog~~ serine protease inhibitor has glycine at position R8.

20. (Currently amended) The method according to claim 14, wherein said ~~substitution analog~~ serine protease inhibitor has valine at position R8.

21. (Previously presented) The method according to claim 14, further comprising administering at least one additional antiviral or antibacterial agent.

22. (Currently amended) The method according to claim 14, wherein said ~~secretory leukocyte~~ serine protease inhibitor is covalently linked to polyethylene glycol.

23. (Canceled)

24. (Currently amended) A method for the inhibition of retroviral proliferation which comprises treating a patient with a composition containing an antiretroviral effective amount of a serine protease inhibitor comprising the amino acid sequence of a ~~naturally occurring secretory leukocyte protease inhibitor or a substitution analog comprising the amino acid sequence (SEQ ID NO:4)~~ set forth in SEQ ID NO:4:

R1-Gly-Lys-Ser-Phe-Lys-Ala-Gly-Val-Cys-Pro-Pro-
Lys-Lys-Ser-Ala-Gln-Cys-Leu-R2-Tyr-Lys-Lys-Pro-
Glu-Cys-Gln-Ser-Asp-Trp-Gln-Cys-Pro-Gly-Lys-Lys-
Arg-Cys-Cys-Pro-Asp-Thr-Cys-Gly-Ile-Lys-Cys-Leu-
Asp-Pro-Val-Asp-Thr-Pro-Asn-Pro-Thr-Arg-Arg-Lys-
Pro-Gly-Lys-Cys-Pro-Val-Thr-Tyr-Gly-Gln-Cys-R8-
R3-R9-Asn-Pro-Pro-Asn-Phe-Cys-Glu-R4-Asp-Gly-
Gln-Cys-Lys-Arg-Asp-Leu-Lys-Cys-Cys-R5-Gly-R6
Cys-Gly-Lys-Ser-Cys-Val-Ser-Pro-Val-Lys-R7

wherein

R1 and R7 are the same or different and are ~~selected from the group consisting of serine, alanine or a substituted or unsubstituted~~ an amino acid residue;

R2, R3, R4, R5 and R6 are the same or different and are selected from the group consisting of methionine, valine, alanine, phenylalanine, tyrosine, tryptophan, lysine, glycine and arginine; and

R8 and R9 are the same or different and are selected from the group consisting of methionine, valine, alanine, phenylalanine, tyrosine, tryptophan, lysine, glycine, leucine and arginine.

25. (Previously presented) The method according to claim 24, wherein the retrovirus is a human immunodeficiency virus (HIV).

26. (Previously presented) The method according to claim 25, wherein the HIV is HIV-1.

27. (Currently amended) The method of claim 24, wherein said ~~secretory-leukocyte~~ serine protease inhibitor is administered intravenously.

28. (Currently amended) The method of claim 24, wherein said ~~secretory-leukocyte~~ serine protease inhibitor is administered subcutaneously.

29. (Currently amended) The method according to claim 24, wherein said ~~substitution analog~~ serine protease inhibitor has phenylalanine at position R8.

30. (Currently amended) The method according to claim 24, wherein said ~~substitution analog~~ serine protease inhibitor has glycine at position R2.

31. (Currently amended) The method according to claim 24, wherein said ~~substitution analog~~ serine protease inhibitor has glycine at position R8.

32. (Currently amended) The method according to claim 24, wherein said ~~substitution analog~~ serine protease inhibitor has valine at position R8.

33. (Currently amended) The method according to claim 24, further comprising administering at least one additional antiviral or antibacterial agent.

34. (Currently amended) The method according to claim 24, wherein said ~~secretory leukocyte~~ serine protease inhibitor is covalently linked to polyethylene glycol.

35. (Canceled)

36. (New) The method according to claim 14, wherein said serine protease inhibitor has serine at position R1, arginine at position R2, methionine at position R3, methionine at position R4, methionine at position R5, methionine at position R6, alanine at position R7, leucine at position R8, and leucine at position R9.

37. (New) The method according to claim 24, wherein said serine protease inhibitor has serine at position R1, arginine at position R2, methionine at position R3, methionine at position R4, methionine at position R5, methionine at position R6, alanine at position R7, leucine at position R8, and leucine at position R9.